

EXHIBIT 10

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19 **UNITED STATES DISTRICT COURT**
20 **NORTHERN DISTRICT OF CALIFORNIA**

21 **SAN FRANCISCO**

22 ANIBAL RODRIGUEZ AND JULIE ANNA
23 MUNIZ, individually and on behalf of all other
24 similarly situated,

25 Case No. 3:20-CV-04688

26 **DEFENDANT GOOGLE LLC’S SECOND
27 SUPPLEMENTAL OBJECTIONS AND
28 RESPONSES TO PLAINTIFFS’
INTERROGATORIES, SET SIX**

29 Plaintiff,

30 vs.

31 GOOGLE LLC, *et al.*,

32 Defendant.

33 Judge: Hon. Richard Seeborg
34 Courtroom: 3, 17th Floor
35 Action Filed: July 14, 2020

36 PROPOUNDING PARTY: PLAINTIFFS ANIBAL RODRIGUEZ AND JULIEANNA MUNIZ

37 RESPONDING PARTY: DEFENDANT GOOGLE LLC

38 SET NO.: SIX (SECOND SUPPLEMENTAL RESPONSES)

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1 Pursuant to Rules 26 and 33 of the Federal Rules of Civil Procedure (“Federal Rules”),
2 Defendant Google LLC hereby submits its second supplemental objections and responses to
3 Plaintiffs’ Sixth Set of Interrogatories, Set Six.

PRELIMINARY STATEMENT AND GENERAL OBJECTIONS

5 1. Each of Google’s responses is subject to, and incorporates, the following general
6 objections. Google specifically incorporates each of these general objections into its responses to
7 each of Plaintiffs’ Interrogatories, whether or not each such general objection is expressly referred
8 to in Google’s responses to a specific Interrogatory.

9 2. Google objects to the instructions, definitions, and Interrogatories to the extent that
10 they are broader than, or attempt to impose conditions, obligations, or duties beyond those
11 required by the Federal Rules and/or the Local Rules. Google’s responses will be provided in
12 accordance with the Federal Rules and the Local Rules.

13 3. Google objects to any Interrogatory to the extent that it is overbroad, unduly
14 burdensome, compound, and/or oppressive, or purports to impose upon Google any duty or
15 obligation that is inconsistent with or in excess of those obligations that are imposed by the
16 Federal Rules, the Local Rules, or any other applicable rule or Court order. In particular, Google
17 objects to any Interrogatory to the extent that it calls for information not relevant to the claims or
18 defenses of the parties, or not proportional to the needs of this case.

19 4. Google objects to each Interrogatory to the extent it is vague, ambiguous, overly
20 broad, or unduly burdensome as to time frame.

21 5. Google objects to each Interrogatory to the extent that it purports to attribute any
22 special or unusual meaning to any term or phrase.

23 6. Google objects to each Interrogatories to the extent they seek confidential,
24 proprietary, or trade secret information of third parties.

25 7. Google’s objections and responses to these Interrogatories are not intended to waive
26 or prejudice any objections Google may assert now or in the future, including, without limitation,
27 objections as to the relevance of the subject matter of any Interrogatory, or as to the admissibility

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1 of any information or category of information at trial or in any other proceedings. Google
2 expressly reserves any and all rights and privileges under the Federal Rules of Civil Procedure, the
3 Federal Rules of Evidence, the Local Rules, and any other applicable laws or rules, and the failure
4 to assert such rights and privileges or the inadvertent disclosure by Google of information
5 protected by such rights and privileges shall not constitute a waiver thereof, either with respect to
6 these responses or with respect to any future discovery responses or objections.

7 8. Google has responded to the Interrogatories as it interprets and understands them. If
9 Plaintiffs subsequently assert an interpretation of any Interrogatory that differs from Google’s
10 understanding of that Interrogatory, Google reserves the right to supplement its objections and/or
11 responses. Google objects to each and every one of the purported Instructions as unduly
burdensome and inconsistent with the Federal Rules and Local Rules.

12 9. Discovery in this matter is ongoing. Accordingly, Google reserves the right to
13 change, amend, or supplement any or all of the matters contained in these responses as Google’s
14 investigation continues, additional facts are ascertained, analyses are made, research is completed,
15 and additional documents are subsequently discovered, collected, and/or reviewed.

OBJECTIONS TO DEFINITIONS

17 10. Google objects to the definition of the terms “GOOGLE,” “YOU,” and “YOUR” as
18 incomprehensible. Google construes GOOGLE, YOU, and YOUR to mean Google LLC. Google
19 further objects to this definition to the extent that it purports to include forms of information not
20 discoverable under the Federal Rules, the Local Rules, or any other applicable authority.

21 11. Google objects to the definition of “ALL” as overbroad and nonsensical.

22 12. Google objects to the definition of the terms “AUTHENTICATED DATA” and
23 “UNAUTHENTICATED/PSEUDONYMOUS DATA” as vague, ambiguous, unintelligible,
24 and/or unrelated to this case. Plaintiffs appear to have used terminology that relates to other
25 litigation in which Plaintiffs’ counsel are involved, but that has no bearing in this case.

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1 13. Google objects to the definition of “CLASS PERIOD” as vague, ambiguous, and
 2 overbroad. Plaintiffs’ definition of the class period in this case is circular and legally
 3 impermissible.

4 14. Google objects to the definition of “GOOGLE” as overbroad.

5 15. Google objects to the definition of the terms “DESCRIBE,” “DESCRIPTION,”
 6 “CONCERNING,” “ASSOCIATED,” and “RELATING TO” as overbroad, oppressive, and
 7 circular.

8 16. Google objects to the definition of the terms “FINGERPRINTING” as vague,
 9 ambiguous, and/or unrelated to this case.

10 17. Google objects to the definition of the terms “INCLUDE” or “INCLUDING” as
 11 circular and vague.

12 18. Google objects to the definition of “USER” as ambiguous, overbroad, unduly
 13 burdensome, and partially irrelevant, including because it purports to incorporate the vague,
 14 ambiguous, and overbroad term “service” without limitation, and also purports to include
 15 applications that use Firebase SDK writ large.

16 19. Google objects to the definition of the terms “WAA OFF DATA” as ambiguous,
 17 overbroad, unduly burdensome, and partially irrelevant, including because it purports to seek
 18 “data generated by a user’s use of non-GOOGLE apps that employ or embed any GOOGLE
 19 service” without limitation to the services at issue in this action.

RESPONSES TO INTERROGATORIES**INTERROGATORY NO. 12:**

22 State the numbers of unique GOOGLE Accounts, for which the user disabled (i.e., “turned
 23 off”) WAA or sWAA during the Class Period, associated with the following three geographical
 24 locations: the world, the United States, and California. Include, in your answer:

25 a) The number of unique GOOGLE Accounts for which the user disabled (i.e., turned
 26 off”) WAA or sWAA at least once during the class period.

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b) The number of unique GOOGLE Accounts (i) for which the user disabled (i.e., turned “off”) WAA or sWAA at least once during the class period, AND (ii) the geographical and/or geolocation data, associated with the Account, indicate that the user resided in the United States during any part of the Class Period.

c) The number of unique GOOGLE Accounts (i) for which the user disabled (i.e., turned “off”) WAA or sWAA at least once during the class period, AND (ii) the geographical and/or geolocation data, associated with the Account, indicate that the user resided in California during any part of the Class Period.

RESPONSE TO INTERROGATORY NO. 12:

Google objects to this Interrogatory as vague and ambiguous as to several undefined terms and phrases susceptible to multiple meanings. For purposes of this response, Google construes “Google” to mean Google LLC and “WAA” to mean the account-level setting called Web & App Activity. Google further objects to this Interrogatory as overbroad, unduly burdensome, and abusive to the extent it seeks information “associated” with Google Accounts around “the world” and across “the United States,” both of which are beyond the jurisdictional scope of this action. Google further objects to this Interrogatory to the extent that it seeks information protected by the attorney-client privilege and/or the attorney work product doctrine.

Subject to and without waiving the foregoing objections, Google responds as follows:

From July 27, 2016 to July 27, 2020, [REDACTED] active Google Accounts in the United States turned off Web & App Activity settings for any period of any time.

SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 12:

Subject to and without waiving the foregoing, Google responds further as follows:

Google can only track an existing Google Account's historical Web & App Activity status. As a result, Google cannot provide figures for Google Accounts that have been deleted, but may have turned off Web & App Activity at some point during the Class Period. Further, the database from which Google pulls metrics regarding the Web & App Activity status of Google

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1 Accounts does not include information on residence by state. Accordingly, Google cannot readily
 2 provide figures specific to California.

3 From July 27, 2016 to July 27, 2020, [REDACTED] active Google accounts in the United
 4 States turned off the “sWAA” setting for any period of any time.

5 Google will supplement Interrogatory No. 12 during expert discovery to the extent a
 6 continued diligent search uncovers additional responsive information.

7 **INTERROGATORY NO. 13:**

8 Please IDENTIFY and DESCRIBE every GOOGLE dashboard, bit, field, or tracking tool
 9 that currently contains or previously during the CLASS PERIOD contained any information
 10 related to the WEB & APP ACTIVITY status (e.g., disabled vs. enabled, including for WAA
 11 and/or sWAA) of any GOOGLE Account, including aggregated statistics. This Request includes a
 12 DESCRIPTION of all information available (or previously available) from that dashboard, bit,
 13 field, or tracking tool. This Interrogatory includes any dashboard, bit, field, or tracking tool that
 14 includes or included information regarding revenues associated with traffic according to WEB &
 15 APP ACTIVITY status.

16 **RESPONSE TO INTERROGATORY NO. 13:**

17 Google objects to this Interrogatory as vague and ambiguous as to several undefined terms
 18 and phrases susceptible to multiple meanings. For purposes of this response, Google construes
 19 “Google” to mean Google LLC and “WAA” to mean the account-level setting called Web & App
 20 Activity. Google additionally objects to this Interrogatory as vague, ambiguous, and confusing as
 21 to the use of the undefined phrase “dashboard, bit, field, or tracking tool” and “status . . . of any
 22 Google Account, including aggregated statistics.” Google further objects to this Interrogatory as
 23 overbroad, unduly burdensome, and abusive to the extent it seeks information that is not relevant
 24 to any claim or defense in this Action, including because it seeks information concerning “every
 25 Google dashboard, bit, field, or tracking tool” containing “any information related to the Web &
 26 App Activity status of any Google account” without limitation to data sent to Google by
 27 third-party app developers after collection, if any, through GA for Firebase, Cloud Messaging, or

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1 AdMob—i.e. concerning, Plaintiff’s theory of wrongdoing in the Third Amended Complaint.
 2 Google further objects to this Interrogatory or overbroad and unduly burdensome to the extent that
 3 Google does not have a central source of dashboards or tracking tools. Google further objects to
 4 this Interrogatory to the extent that it seeks information protected by the attorney-client privilege
 5 and/or the attorney work product doctrine.

6 Subject to and without waiving the foregoing objections, Google responds as follows:
 7 Google maintains the “My Activity Metrics” dashboard, which provides certain measurements of
 8 Google account interactions with the Web & App Activity setting; the “Web & App Activity
 9 Log,” which tracks Web & App Activity on-and-off events for all Google Account IDs on an
 10 individual level; and the “User Attributes” table, which contains information about a user’s
 11 Google Account settings, including their Web & App Activity setting.

12 **INTERROGATORY NO. 14:**

13 Please IDENTIFY every data source (including logs) that includes or during the CLASS
 14 PERIOD included WAA OFF DATA. For each such data source, please include a list of field
 15 names and descriptions, the retention period, and how such data sources are used.

16 **RESPONSE TO INTERROGATORY NO. 14:**

17 Google objects to this Interrogatory as vague and ambiguous as to several undefined terms
 18 and phrases susceptible to multiple meanings. For purposes of this response, Google construes
 19 “Google” to mean Google LLC and “WAA” to mean the account-level setting called Web & App
 20 Activity. Google additionally objects to this Interrogatory as vague, ambiguous, and confusing as
 21 to the use of THE undefined phrases “every data source (including logs),” and “how such data
 22 sources are used.”

23 Google further objects to this Interrogatory as overbroad, unduly burdensome, and abusive
 24 to the extent it seeks data sources without limitation to data sent to Google by third-party app
 25 developers after collection, if any, through GA for Firebase, Cloud Messaging, or AdMob—i.e.
 26 concerning, Plaintiff’s theory of wrongdoing in the Third Amended Complaint.

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1 Google further objects to this Interrogatory as overbroad, unduly burdensome, and
 2 compound because it seeks an identification of every “data source (including logs)” without a
 3 clear definition of what Plaintiffs consider to qualify as a “data source.”

4 Google further objects to this Interrogatory as overbroad, unduly burdensome, and abusive
 5 to the extent it seeks information regarding all uses of “WAA OFF DATA” without limitation to
 6 data sent to Google by third-party app developers after collection, if any, through GA for
 7 Firebase—i.e. concerning Plaintiff’s theory of wrongdoing in the Third Amended Complaint.

8 Google further objects to this Interrogatory to the extent that it seeks information protected
 9 by the attorney-client privilege and/or the attorney work product doctrine.

10 Subject to and without waiving the foregoing, Google responds as follows:

11 Google has provided exacting detail of its main logs associated with the transmission of
 12 app-interaction / measurement data to Google via Google Analytics for Firebase when a user has
 13 turned WAA to “off,” *inter alia*, in response to Plaintiffs’ Interrogatory No. 1. Google has also
 14 provided samples of those primary logs that store the transmitted data, and is investigating further
 15 potential data sources that may contain such data. Google states, however, that it is not practical or
 16 relevant to account for every single potential data source (including logs) that may contain such
 17 data because there are various downstream users of the pseudonymous data described in response
 18 to Plaintiffs’ Interrogatory No. 1. Nevertheless, the policies in place as described in response to
 19 Interrogatory No. 1, including the policies that forbid the re-association of pseudonymous data
 20 with personal identifiers, apply to all such downstream users of the data.

21 **INTERROGATORY NO. 15:**

22 Please DESCRIBE how GOOGLE currently uses and previously during the CLASS
 23 PERIOD has used WAA OFF DATA, including by explaining the extent to which and how
 24 GOOGLE currently uses and previously during the CLASS PERIOD used WAA OFF DATA to
 25 track or measure conversions and personalize advertisements.

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1 **RESPONSE TO INTERROGATORY NO. 15:**

2 Google objects to this Interrogatory as vague and ambiguous with respect to the phrases
 3 “track or measure conversions” and “personalize advertisements.” Google objects to this
 4 Interrogatory as vague and ambiguous as to several undefined terms and phrases susceptible to
 5 multiple meanings. For purposes of this response, Google construes “Google” to mean Google
 6 LLC and “WAA” to mean the account-level setting called Web & App Activity.

7 Google further objects to this Interrogatory as overbroad, unduly burdensome, and abusive
 8 to the extent it seeks information regarding all uses of “WAA OFF DATA” without limitation to
 9 data sent to Google by third-party app developers after collection, if any, through GA for
 10 Firebase—i.e. concerning Plaintiff’s theory of wrongdoing in the Third Amended Complaint.
 11 Google further objects to this Interrogatory as duplicative, including because Google has already
 12 responded to an interrogatory describing “what occurs when users . . . turn off (or previously
 13 paused) Web & App Activity.”

14 Google further objects to this Interrogatory to the extent that it seeks information protected
 15 by the attorney-client privilege and/or the attorney work product doctrine.

16 Subject to and without waiving the foregoing objections, Google responds as follows:
 17 Google hereby incorporates its response and supplemental responses to Plaintiffs’ Interrogatory
 18 No. 1 as if set forth here, and objects to this Interrogatory to the extent it is duplicative of
 19 Interrogatory No. 1. In addition to Google’s responses to Interrogatory No. 1, Google responds
 20 here that it uses data sent to it via Google Analytics for Firebase for each of the uses described in
 21 its Privacy Policy and Google Analytics for Firebase Terms of Service, according to the settings
 22 and consents provided by both end users and Firebase customers. This includes pseudonymous
 23 conversion tracking and ad targeting for anonymized ad profiles.

24 **SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 15**

25 Subject to and without waiving the foregoing, Google responds further as follows:

26 DeviceID-keyed advertising interactions with an advertiser, such as views and clicks of
 27 that advertiser’s ads, are joined to conversions recorded in that advertiser’s app using Firebase (or

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1 other third party conversion tracking products or services). In this way, Google serves as an
 2 accountant, helping advertisers understand when the same device that interacted with their ad
 3 subsequently converted (e.g., opened their app, or made an in-app purchase, depending on how the
 4 advertiser has defined a conversion for the ad campaign).

5 When a user is signed in and has sWAA off, app activity data sent to Google via GA4F
 6 while sWAA is off cannot be used for personalization. If a user is signed out on a device and also
 7 happens to have one or more Google accounts that have sWAA turned off at the time of app
 8 activity in a GA4F-enabled app on that device, that app activity data could become part of an
 9 anonymized ad profile for ads personalization.

10 **INTERROGATORY NO. 16:**

11 Please DESCRIBE all facts that support or undermine a defense or affirmative defense that
 12 YOU have asserted, intend to, will, or may assert in the present litigation.

13 **RESPONSE TO INTERROGATORY NO. 16:**

14 Google objects to this Interrogatory as compound and unduly burdensome. Google objects
 15 to this Interrogatory as vague and ambiguous with respect to the phrase “support or undermine a
 16 defense or affirmative defense.” Google further objects to this Interrogatory because it
 17 prematurely seeks expert opinion. Google further objects to this Interrogatory to the extent that it
 18 seeks information protected by the attorney-client privilege and/or the attorney work product
 19 doctrine.

20 Subject to and without waiving the foregoing objections, Google responds that it is willing
 21 to meet and confer with Plaintiffs over an appropriate response to this Interrogatory, including
 22 with respect to how to address its compound nature.

23 **SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 16:**

24 Subject to and without waiving the foregoing, Google responds further as follows:

25 App developers who use the GA for Firebase SDK must agree to Google Analytics Terms
 26 of Service, which requires that app developers disclose the use of Google Analytics and how it
 27 collects and processes data. *See* <https://firebase.google.com/terms/analytics>;

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1 <https://marketingplatform.google.com/about/analytics/terms/us/>. App developers who use GA for
 2 Firebase SDK have been expected to comply with the Google Analytics Terms of Service and/or
 3 the GA for Firebase Terms of Service, including disclosing to end users that they use Google’s
 4 analytics services, and that certain data is being collected by the app developer and transmitted to
 5 Google to store, process, and analyze.

6 Many app developers provide their end users with a way to opt out of analytics usage,
 7 and/or to delete data the developer has collected from that user’s device and sent to Google. *See*
 8 Ganem Rough Tr. at 139–41. Upon receipt of such data, before logging any of it, as detailed in
 9 response to Interrogatory No. 1, Google undertakes several consent checks if the developer has
 10 enabled Google Signals or Enhanced Firebase Audiences. Google uses a DSID token sent with
 11 the app measurement data to query the EventFE server at Google. If the user has a number of
 12 privacy controls enabled, including sWAA, and the app developer has Google Signals enabled,
 13 then the EventFE server will return a GAIA ID for that user, and GAIA-tied app measurement
 14 data will be written to an app measurement-gaia log. If EventFE does not return a GAIA ID, the
 15 app measurement data is stripped of certain pieces of information that could be used to personally
 16 identify the user who was using the device, and the app measurement data is logged only in
 17 “pseudonymous space” to the app measurement log. Google acts as a service provider to store,
 18 process, and analyze the app measurement data for the developer.

19 If the data was generated while WAA was off, the data is not written to [REDACTED] and
 20 therefore not used for personalized advertising purposes. Users also have the option to configure
 21 their device and account settings to control whether ads are personalized. *See, e.g.*,
 22 https://support.google.com/accounts/answer/2662922#stop_goog_p13n. If on a specific device,
 23 the user has enabled the LAT control on iOS or clicked “Don’t Allow” on the App Tracking
 24 Transparency prompt on iOS (v.14.5 and up), the pseudonymous app measurement data will not
 25 contain an IDFA. If the user has enabled the OOOAP control on Android, when app developers
 26 send app measurement data to Google through GA for Firebase, Google uses the OOOAP signal
 27 to ensure that the data associated with the user’s deviceID is not used for personalized advertising.

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Google has learned through the course of named plaintiff depositions that each named Plaintiff lacks Article III standing as well as standing to sue more generally because none has suffered an injury. What follows are Google's legal contentions concerning Plaintiffs' standing.

First, Plaintiffs Cataldo and Santiago did not suffer any injury because they manufactured their injuries in this case. Each of them first turned off their WAA control after learning of the substance of their allegations in this case. They subsequently willingly engaged with the very apps they alleged were working a violation of their privacy. Plaintiff Rodriguez lacks standing because he only had his WAA control off for seven days during the proposed class period, and during those ten days, he had his GAP control turned on, which means that he could not have received any personalized advertising using WAA-off data. Further, he confirmed in testimony that he would not have changed his behavior in a but-for world because, after making his allegations in this case, he did not change any of his behavior, and instead willingly submitted to the alleged violations of privacy. And Plaintiff Harvey admitted during her deposition that she did not turn WAA on or off for any particular reason, and that she has not changed her behavior since filing this case despite the alleged violations of privacy. Finally, both Plaintiff Rodriguez and Plaintiff Harvey refused to testify when given the opportunity to do so that, if the Court rules Google's practices are lawful, they would change any of their behavior to avoid the alleged violations of privacy.

INTERROGATORY NO. 17:

Please DESCRIBE all facts concerning the revenue and profits that GOOGLE generates or receives related to the collection, storage, or use of WAA OFF DATA including for each year during the CLASS PERIOD:

- a. The amount of those revenue and profits by year and month
- b. How those revenue and profits are and have been generated;
- c. GOOGLE's total revenue and profits related to GOOGLE Analytics;
- d. What percentage of the revenue and profits reported in response to subparagraph (c)

were generated based on WAA OFF DATA;

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e. Google's total revenue and profits related to AdMob;

f. What percentage of the revenue and profits reported in response to subparagraph (e)

were generated based on WAA OFF DATA;

g. How said revenue and profits are and have been accounted for within or attributed to the profit and costs centers of GOOGLE, specifying any GOOGLE products, services, teams, and accounting units;

h. The amount of said revenue and profits attributed to the profit and costs centers of GOOGLE, specifying any GOOGLE products, services, teams, and accounting units, described by year and month; and

i. The amount of those revenues broken down by region, including for the United States and California

j. An IDENTIFICATION of all documents relied on in responding to this Interrogatory.

RESPONSE TO INTERROGATORY NO. 17:

Google objects to this Interrogatory as compound. Google objects to this Interrogatory as vague and ambiguous as to several undefined terms and phrases susceptible to multiple meanings. For purposes of this response, Google construes “Google” to mean Google LLC and “WAA” to mean the account-level setting called Web & App Activity. Google additionally objects to this Interrogatory as vague, ambiguous, and confusing as to the use of THE undefined phrases “generates or receives,” “collection, storage, or use,” “generated,” “accounted for within,” “attributed to,” “profit and costs center,” and “relied on.”

Google further objects to this Interrogatory as overbroad, unduly burdensome, and abusive to the extent it seeks revenue and profits, without limitation to revenue attributed to data sent to Google by third-party app developers after collection, if any, through GA for Firebase, Cloud Messaging, or AdMob—i.e. concerning Plaintiff’s theory of wrongdoing in the Third Amended Complaint.

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1 Google further objects to this Interrogatory as overbroad and unduly burdensome to the
 2 extent Google does not track its revenues or profits as connected to the collection, storage, or use
 3 of “WAA OFF DATA,” as defined by Plaintiffs. Google also objects to this Interrogatory as
 4 overbroad and unduly burdensome to the extent Google does not track revenues or profits for
 5 Google Analytics or AdMob.

6 Google further objects to this Interrogatory to the extent that it seeks information protected
 7 by the attorney-client privilege and/or the attorney work product doctrine.

SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 17:

9 Subject to and without waiving the foregoing, Google responds further as follows:

10 Google Analytics for Firebase (GA4F) app measurement data does not directly generate
 11 revenue for Google. The product itself operates at a significant net loss. However, GA4F helps
 12 Google’s revenue-generating functions because it leads to a “virtuous cycle” in the parlance of the
 13 GA4F team that helps developers make their apps perform better, which in turn leads to increased
 14 user engagement, which in turn leads to app developers investing more in their apps and into
 15 advertising their apps.

16 There are also advertising functions supported by GA4F more directly, though its principal
 17 function in this support role is to maintain the trust of app developers and advertisers in the
 18 monitoring tools they use and the ad targeting functions and conversion tracking functions they
 19 seek.

20 Where advertising is discussed below, it is in reference to App Campaigns, which are ad
 21 campaigns advertisers who have GA4F enabled in their apps will run to drive installs or re-
 22 engagement with their apps. *See* https://support.google.com/google-ads/topic/10011871?hl=en&ref_topic=10287124,3181080,3126923. Further, Google interprets
 23 this interrogatory to exclude signed-out users.

25 *First*, when a user has sWAA on, as well as GAP, and does not have LAT or OOOAP
 26 enabled, and the developer has enabled Google Signals and linked their GA4F property to Google
 27 Ads, and the user is considered neither a Unicorn (under 13) or a Dasher account (enterprise), app

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1 measurement data from GA4F can be written to a GAIA-tied user store at Google called [REDACTED],
 2 which can subsequently be used for interest-based advertising, depending on the user’s privacy
 3 settings at the time of ad serving (*i.e.*, if they have GAP on and have not enabled LAT or
 4 OOOAP). Google understands this revenue stream to be outside the scope of this case, because it
 5 depends on the user having sWAA on at the time the app measurement data was generated.
 6 Google does not use app measurement data generated while a user is signed in and has sWAA off
 7 (which is necessarily off when WAA is off) for personalized advertising (*i.e.*, interest-based
 8 advertising).

9 ***Second***, when a GA4F developer has linked their Analytics property to a Google Ads
 10 account, that enables conversion tracking under appropriate circumstances. *See, e.g.*,
 11 <https://support.google.com/google-ads/answer/1722054>. On Android, GA4F conversions are
 12 registered using the pseudonymous identifier ADID; they could also be registered using GAIA if
 13 the user has sWAA turned on as well as other privacy settings configured properly (GAP on, NAC
 14 on, LAT off) and if the developer has enabled Google Signals. On iOS, GA4F registers
 15 conversions using the pseudonymous identifier IDFA. If the iOS IDFA is zeroed out because the
 16 user has enabled LAT or clicked “Don’t Allow” on the App Tracking Transparency prompt,
 17 GA4F would be unable to directly associate app-install conversions with ad impressions and
 18 clicks which drove them. Regardless, no data in this scenario would be written to [REDACTED] or used
 19 for personalized advertising. App developers can also use third parties to track conversions, such
 20 as AppsFlyer and Kochava. *See* https://support.google.com/google-ads/answer/9260620?hl=en&ref_topic=11069497.

22 Separately, ad interactions with Google-served ads are recorded by the appropriate ad
 23 stack using pseudonymous identifiers such as device ID and ad event id when available.

24 In a process called attribution, Google serves as an accountant for the app
 25 developer/advertiser, determining if the ad interaction and the conversion recorded by GA4F or by
 26 a third party SDK were made by the same device or user so the developer/advertiser can measure
 27

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1 the effectiveness of the ad campaign. *See id.* (discussing how to track conversions with Firebase
 2 and third-party providers such as AppsFlyer and Kochava).

3 Google tracks app campaign ad spend that is bid against different types of conversions. As
 4 of last month, approximately [REDACTED] of app campaign ad revenue was attributable to conversion
 5 types bid against GA4F (as opposed to other sources of conversions). Before [REDACTED], which
 6 launched in approximately 1H 2019, this percentage was significantly lower—approximately 6% or
 7 less. By October 31, 2019, this percentage was [REDACTED]. By October 21, 2020, it was [REDACTED]. By
 8 October 1, 2021, it was [REDACTED]. By October 1, 2022, it was [REDACTED].

9 To pinpoint the proportion of attributed GA4F conversion events that are triggered when
 10 the user making the conversion has sWAA turned off during the class period is virtually if not
 11 actually impossible. Google has identified no method to do this. However, Plaintiffs have
 12 requested that Google provide estimates of how much GA4F traffic in general is “WAA-off
 13 traffic.” This is likewise not possible to tell with historical data because WAA status is not logged
 14 alongside pseudonymous GA4F app measurement data. Plaintiffs also requested other indicators
 15 of how much internet traffic is WAA-off traffic. To that end, Google identified a log called
 16 sampledAdEventsQueries that indicates WAA and sWAA status alongside ad interactions, e.g.,
 17 views and clicks, on App Campaigns designated app-install campaigns. Google queried this data
 18 source, which maintains ad interaction information with varying degrees of reliability, going back
 19 to the launch of GA4F, for the WAA opt-out rates on 25 random days over the last five years.
 20 These are the results of that query:

ACi WAA Opt-out (SampledAdEventsQueries) – Impressions			
Date	WAA Opt-out Rate on Google Search Advertising Stack	WAA Opt-out Rate on Google Display Advertising Stack	WAA Opt-out Rate on YouTube Advertising Stack
2016-04-18	[REDACTED]	null	null
2016-05-16	[REDACTED]	null	null
2016-08-31	[REDACTED]	null	null
2016-09-24	[REDACTED]	null	null
2016-10-30	[REDACTED]	null	null

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ACi WAA Opt-out (SampledAdEventsQueries) – Impressions			
Date	WAA Opt-out Rate on Google Search Advertising Stack	WAA Opt-out Rate on Google Display Advertising Stack	WAA Opt-out Rate on YouTube Advertising Stack
2017-04-13	[REDACTED]	null	null
2017-05-26	[REDACTED]	null	null
2017-07-31	[REDACTED]	null	null
2017-08-03	[REDACTED]	null	null
2017-12-16	[REDACTED]	null	null
2018-01-06	[REDACTED]	null	null
2018-03-16	[REDACTED]	null	null
2018-08-13	[REDACTED]	null	null
2018-09-15	[REDACTED]	null	null
2018-12-27	[REDACTED]	null	null
2019-02-01	[REDACTED]	null	null
2019-05-12	[REDACTED]	null	null
2019-10-06	[REDACTED]	null	null
2019-11-11	[REDACTED]	null	null
2019-12-01	[REDACTED]	null	null
2020-03-03	[REDACTED]	null	null
2020-07-30	[REDACTED]	null	null
2020-08-13	[REDACTED]	null	null
2020-11-30	null	null	null
2020-12-13	null	null	null
2021-01-07	null	null	null
2021-02-17	null	null	null
2021-05-19	null	null	null
2021-09-19	null	null	null
2021-10-03	null	null	null
2022-03-15	null	[REDACTED]	[REDACTED]
2022-04-21	null	[REDACTED]	[REDACTED]
2022-05-11	null	[REDACTED]	[REDACTED]

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ACi WAA Opt-out (SampledAdEventsQueries) – Clicks			
Date	WAA Opt-out Rate on Google Search Advertising Stack	WAA Opt-out Rate on Google Display Advertising Stack	WAA Opt-out Rate on YouTube Advertising Stack
2019-05-12	[REDACTED]	null	null
2019-10-06	[REDACTED]	null	null
2019-11-11	[REDACTED]	null	null
2019-12-01	[REDACTED]	null	null
2020-03-03	[REDACTED]	null	null
2020-07-30	[REDACTED]	null	null
2020-08-13	[REDACTED]	null	null
2020-11-30	null	null	null
2020-12-13	null	null	null
2021-01-07	null	null	null
2021-02-17	null	null	null
2021-05-19	null	null	null
2021-09-19	null	null	null
2021-10-03	null	null	null
2022-03-15	null	[REDACTED]	[REDACTED]
2022-04-21	null	[REDACTED]	[REDACTED]
2022-05-11	null	[REDACTED]	[REDACTED]

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1 Finally, Google’s overall App Campaign profit and loss statements were produced at
 2 GOOG-RDGZ-00184247 (2017-2020) and GOOG-RDGZ-00185744 (2021). Google’s operating
 3 profit for App Promo ads for years 2017-2021 was as follows:

- 4 • 2017: [REDACTED]
- 5 • 2018: [REDACTED]
- 6 • 2019: [REDACTED]
- 7 • 2020: [REDACTED]
- 8 • 2021: [REDACTED]

SECOND SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 17:

10 Subject to and without waiving the foregoing, Google responds further as follows:

11 Google identified a log called sampledAdEventsQueries that indicates WAA and sWAA
 12 status alongside ad interactions, e.g., views and clicks, on App Campaigns designated app-install
 13 campaigns. Google queried this data source, which maintains ad interaction information with
 14 varying degrees of reliability, going back to the launch of GA4F, for the WAA and sWAA opt-out
 15 rates on 25 random days over the last five years. These are the results of that query for United
 16 States users:

ACi WAA Opt-out (SampledAdEventsQueries) – Impressions (US Only)			
Date	WAA Opt-out Rate on Google Search Advertising Stack	WAA Opt-out Rate on Google Display Advertising Stack	WAA Opt-out Rate on YouTube Advertising Stack
2016-04-01	[REDACTED]	null	null
2016-05-01	[REDACTED]	null	null
2016-08-01	[REDACTED]	null	null
2016-09-01	[REDACTED]	null	null
2016-10-01	[REDACTED]	null	null
2017-04-01	[REDACTED]	null	null
2017-05-01	[REDACTED]	null	null
2017-07-01	[REDACTED]	null	null
2017-08-01	[REDACTED]	null	null

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ACi WAA Opt-out (SampledAdEventsQueries) – Impressions (US Only)				
	Date	WAA Opt-out Rate on Google Search Advertising Stack	WAA Opt-out Rate on Google Display Advertising Stack	
			WAA Opt-out Rate on YouTube Advertising Stack	
1	2017-12-01	[REDACTED]	null	null
2	2018-01-01	[REDACTED]	null	null
3	2018-03-01	[REDACTED]	null	null
4	2018-08-01	[REDACTED]	null	null
5	2018-09-01	[REDACTED]	null	null
6	2018-12-01	[REDACTED]	null	null
7	2019-02-01	[REDACTED]	null	null
8	2019-05-01	[REDACTED]	null	null
9	2019-10-01	[REDACTED]	null	null
10	2019-11-01	[REDACTED]	null	null
11	2019-12-01	[REDACTED]	null	null
12	2020-03-01	[REDACTED]	null	null
13	2020-07-01	[REDACTED]	null	null
14	2020-08-01	[REDACTED]	null	null
15	2020-11-01	null	null	null
16	2020-12-01	null	null	null
17	2021-01-01	null	null	null
18	2021-02-01	null	null	null
19	2021-05-01	null	null	null
20	2021-09-01	null	null	null
21	2021-10-01	null	null	null
22	2022-03-01	null	[REDACTED]	[REDACTED]
23	2022-04-01	null	[REDACTED]	[REDACTED]
24	2022-05-01	null	[REDACTED]	[REDACTED]

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ACi WAA Opt-out (SampledAdEventsQueries) – Clicks (US Only)			
Date	WAA Opt-out Rate on Google Search Advertising Stack	WAA Opt-out Rate on Google Display Advertising Stack	WAA Opt-out Rate on YouTube Advertising Stack
2019-05-01	[REDACTED]	null	null
2019-10-01	[REDACTED]	null	null
2019-11-01	[REDACTED]	null	null
2019-12-01	[REDACTED]	null	null
2020-03-01	[REDACTED]	null	null
2020-07-01	[REDACTED]	null	null
2020-08-01	[REDACTED]	null	null
2020-11-01	null	null	null
2020-12-01	null	null	null
2021-01-01	null	null	null
2021-02-01	null	null	null
2021-05-01	null	null	null
2021-09-01	null	null	null
2021-10-01	null	null	null
2022-03-01	null	[REDACTED]	[REDACTED]
2022-04-01	null	[REDACTED]	[REDACTED]
2022-05-01	null	[REDACTED]	[REDACTED]

ACi sWAA Opt-out (SampledAdEventsQueries) – Impressions (US Only)			
Date	sWAA Opt-out Rate on Google Search Advertising Stack	sWAA Opt-out Rate on Google Display Advertising Stack	sWAA Opt-out Rate on YouTube Advertising Stack
2016-04-01	null	null	null
2016-05-01	null	null	null
2016-08-01	null	null	null
2016-09-01	null	null	null

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ACI sWAA Opt-out (SampledAdEventsQueries) – Impressions (US Only)				
	Date	sWAA Opt-out Rate on Google Search Advertising Stack	sWAA Opt-out Rate on Google Display Advertising Stack	sWAA Opt-out Rate on YouTube Advertising Stack
1	2016-10-01	null	null	null
2	2017-04-01	null	null	null
3	2017-05-01	null	null	null
4	2017-07-01	null	null	null
5	2017-08-01	null	null	null
6	2017-12-01	null	null	null
7	2018-01-01	null	null	null
8	2018-03-01	null	null	null
9	2018-08-01	null	null	null
10	2018-09-01	null	null	null
11	2018-12-01	null	null	null
12	2019-02-01	null	null	null
13	2019-05-01	null	null	null
14	2019-10-01	null	null	null
15	2019-11-01	null	null	null
16	2019-12-01	null	null	null
17	2020-03-01	null	null	null
18	2020-07-01	null	null	null
19	2020-08-01	null	null	null
20	2020-11-01	null	null	null
21	2020-12-01	null	null	null
22	2021-01-01	null	null	null
23	2021-02-01	null	null	null
24	2021-05-01	null	null	null
25	2021-09-01	null	null	null
26	2021-10-01	null	null	null
27	2022-03-01	null	[REDACTED]	null
28	2022-04-01	null	[REDACTED]	null

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ACI sWAA Opt-out (SampledAdEventsQueries) – Impressions (US Only)				
Date	sWAA Opt-out Rate on Google Search Advertising Stack	sWAA Opt-out Rate on Google Display Advertising Stack	sWAA Opt-out Rate on YouTube Advertising Stack	
2022-05-01	null		██████████	null

ACI sWAA Opt-out (SampledAdEventsQueries) – Clicks (US Only)			
Date	sWAA Opt-out Rate on Google Search Advertising Stack	sWAA Opt-out Rate on Google Display Advertising Stack	sWAA Opt-out Rate on YouTube Advertising Stack
2016-04-01	null	null	null
2016-05-01	null	null	null
2016-08-01	null	null	null
2016-09-01	null	null	null
2016-10-01	null	null	null
2017-04-01	null	null	null
2017-05-01	null	null	null
2017-07-01	null	null	null
2017-08-01	null	null	null
2017-12-01	null	null	null
2018-01-01	null	null	null
2018-03-01	null	null	null
2018-08-01	null	null	null
2018-09-01	null	null	null
2018-12-01	null	null	null
2019-02-01	null	null	null
2019-05-01	null	null	null
2019-10-01	null	null	null
2019-11-01	null	null	null
2019-12-01	null	null	null
2020-03-01	null	null	null
2020-07-01	null	null	null
2020-08-01	null	null	null

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ACi sWAA Opt-out (SampledAdEventsQueries) – Clicks (US Only)			
Date	sWAA Opt-out Rate on Google Search Advertising Stack	sWAA Opt-out Rate on Google Display Advertising Stack	sWAA Opt-out Rate on YouTube Advertising Stack
2020-11-01	null	null	null
2020-12-01	null	null	null
2021-01-01	null	null	null
2021-02-01	null	null	null
2021-05-01	null	null	null
2021-09-01	null	null	null
2021-10-01	null	null	null
2022-03-01	null	[REDACTED]	null
2022-04-01	null	[REDACTED]	null
2022-05-01	null	[REDACTED]	null

Dated: February 14, 2023

WILLKIE FARR & GALLAGHER LLPBy: /s/ Eduardo E. Santacana
Eduardo E. Santacana

Attorneys for Defendant Google LLC

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I am employed in the City and County of San Francisco, State of California. I am over the age of eighteen years and not a party to the within action. My business address is Willkie Farr & Gallagher LLP, One Front Street, San Francisco, CA 94111.

On February 14, 2023, I served the following document(s) on the individuals identified below:

DEFENDANT GOOGLE LLC’S SECOND SUPPLEMENTAL OBJECTIONS AND RESPONSES TO PLAINTIFFS’ INTERROGATORIES, SET SIX

by **E-MAIL VIA PDF FILE**, by transmitting on this date via e-mail a true and correct copy scanned into an electronic file in Adobe “pdf” format. The transmission was reported as complete and without error.

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39 Executed on February 14, 2023 at San Francisco, California.

40 I declare under penalty of perjury under the laws of the United States that the above is true
41 and correct.

42 */s/ Marsi Allard*

43 Marsi Allard